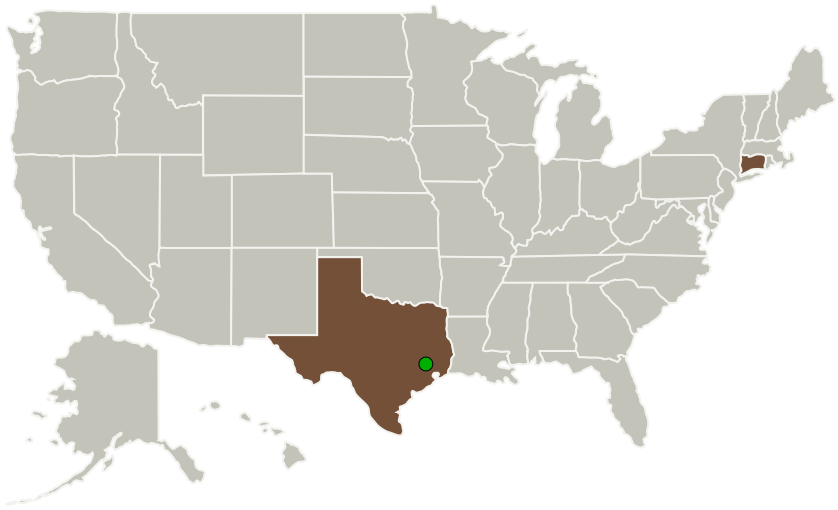
Ambient Preservation of Clinical Analytes, Phase I

Completed Technology Project (2011 - 2011)

Project Introduction

The proposed research is in response to the In-flight Biological Sample Preservation and Analysis topic and offers a non-invasive, proven, space and cost and time effective approach to biological sample collection and preservation. Our proposal is to collect capillary whole blood from the fingertip in addition to urine samples, and to store these samples as dried spots on a custom wick-matrix. The process of sample collection is minimally invasive to non-invasive, and samples can be stored efficiently at ambient temperatures during space flight. A wide array of blood analytes can already be determined from these samples, but in addition, we propose to develop and validate further assays that meet the specific objectives of NASA, its scientists and clinicians.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
Connecticut Analytical Corporation	Lead Organization	Industry	Bethany, Connecticut
Johnson Space Center(JSC)	Supporting Organization	NASA Center	Houston, Texas

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Primary U.S. Work Locations	
Connecticut	Texas

Project Transitions

February 2011: Project Start

September 2011: Closed out

Closeout Documentation:

- Final Summary Chart*(https://techport.nasa.gov/file/137996)*

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Connecticut Analytical Corporation

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

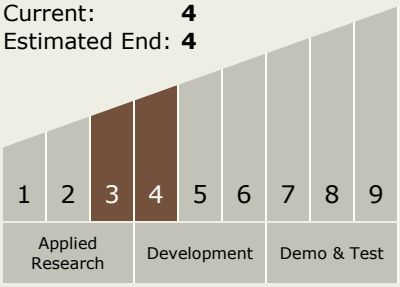
Carlos Torrez

Principal Investigator:

Joseph Bango

Technology Maturity (TRL)

Start: **3**
Current: **4**
Estimated End: **4**



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Technology Areas

Primary:

- TX06 Human Health, Life Support, and Habitation Systems
  - TX06.3 Human Health and Performance
    - TX06.3.1 Medical Diagnosis and Prognosis

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System